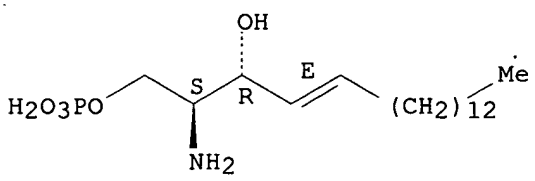
L Number	Hits	Search Text	DB	Time stamp
1	1	"5712262" .pn.	USPAT; US-PGPUB	2003/03/19 10:24
4	41	(sphingosine-1-phosphate or s1p or (sphingosine adj 1-phosphate) or (sphingonsine adj phosphate)) and (fibrotic or fibrosis or cirrhosis or hepatitis or (interstitial adj pneumonia) or diabetes or (renal adj failure) or glomerulosclerosis or (pulmonary adj firbrosis))	USPAT; US-PGPUB	2003/03/19 10:48
3	155	sphingosine-1-phosphate or s1p or (sphingosine adj 1-phosphate) or (sphingonsine adj phosphate)	USPAT; US-PGPUB	2003/03/19 10:53
5	9957	sphingosine-1-phosphate or spp or (sphingosine adj 1-phosphate) or (sphingonsine adj phosphate)	USPAT; US-PGPUB	2003/03/19 10:53
7	15	(sphingosine-1-phosphate or (sphingosine adj 1-phosphate) or (sphingonsine adj phosphate)) and spp	USPAT; US-PGPUB	2003/03/19 10:53
6	71	sphingosine-1-phosphate or (sphingosine adj 1-phosphate) or (sphingonsine adj phosphate)	USPAT; US-PGPUB	2003/03/19 10:55

OTHER NAMES:
CN **C18-Sphingosine 1-phosphate**
CN **D-erythro-Sphingosine-1-phosphate**
CN **Sphingosine 1-phosphate**
FS STEREOSEARCH
DR 26993-39-5
MF C18 H38 N O5 P
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DRUGUPDATES, EMBASE, MEDLINE, PROMT, TOXCENTER, USPATFULL

Absolute stereochemistry.
Double bond geometry as shown.

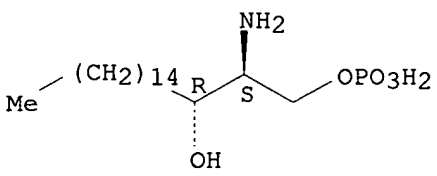


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

570 REFERENCES IN FILE CA (1962 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
572 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 54 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 19794-97-9 REGISTRY
CN 1,3-Octadecanediol, 2-amino-, 1-(dihydrogen phosphate), (2S,3R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3-Octadecanediol, 2-amino-, 1-(dihydrogen phosphate), [R-(R*,S*)]-
CN 1,3-Octadecanediol, 2-amino-, 1-(dihydrogen phosphate), D-erythro- (8CI)
OTHER NAMES:
CN (2S,3R)-Sphinganine 1-phosphate
CN **C18-Dihydrosphingosine 1-phosphate**
CN Sphinganine 1-phosphate
FS STEREOSEARCH
MF C18 H40 N O5 P
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAPLUS, CHEMCATS, MEDLINE, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



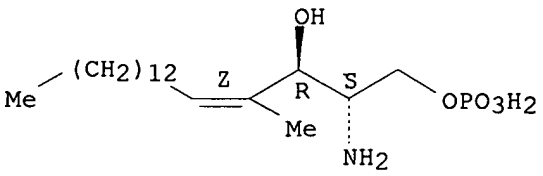
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

43 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

43 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 49 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 193222-35-4 REGISTRY
CN D-erythro-Pentitol, 2-amino-2,4,5-trideoxy-4-tetradecylidene-, 1-(dihydrogen phosphate), (4Z)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **cis-4-Methylsphingosine 1-phosphate**
FS STEREOSEARCH
MF C19 H40 N O5 P
SR CA
LC STN Files: BIOSIS, CA, CAPLUS

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 50 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 169277-44-5 REGISTRY
CN Phosphatase, sphingosine phosphate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Dihydrosphingosine-1-phosphate phosphatase**
CN Sphinganine phosphate phosphatase
CN **Sphingosine 1-phosphate phosphatase**
CN Sphingosine phosphatase
CN **Sphingosine-1-phosphate phosphohydrolase**
MF Unspecified
CI MAN
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
22 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
22 REFERENCES IN FILE CAPLUS (1962 TO DATE)

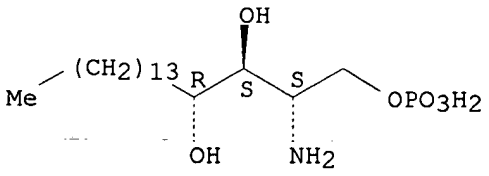
DATE)

L1 ANSWER 51 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 39391-27-0 REGISTRY
CN Lyase, sphinganine 1-phosphate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Aldolase, dihydrosphingosine 1-phosphate**
CN **Dihydrosphingosine 1-phosphate aldolase**
CN **Dihydrosphingosine 1-phosphate lyase**
CN E.C. 4.1.2.27
CN Sphinganine 1-phosphate lyase
CN **Sphingosine 1-phosphate lyase**
CN Sphingosine phosphate lyase
DR 37290-61-2
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
35 REFERENCES IN FILE CA (1962 TO DATE)
36 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 52 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 38597-28-3 REGISTRY
CN 1,3,4-Octadecanetriol, 2-amino-, 1-(dihydrogen phosphate), (2S,3S,4R)-
(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3,4-Octadecanetriol, 2-amino-, 1-(dihydrogen phosphate),
[2S-(2R*,3R*,4S*)]-
CN **Phytosphingosine, 1-phosphate (6CI)**
OTHER NAMES:
CN 4-D-Hydroxysphinganine 1-phosphate
FS STEREOSEARCH
MF C18 H40 N O6 P
LC STN Files: BIOSIS, CA, CAOLD, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1962 TO DATE)
11 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 53 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 26993-30-6 REGISTRY
CN 4-Octadecene-1,3-diol, 2-amino-, 1-(dihydrogen phosphate), (2S,3R,4E)-
(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4-Octadecene-1,3-diol, 2-amino-, 1-(dihydrogen phosphate), (E)-D-erythro-
(8CI)
CN 4-Octadecene-1,3-diol, 2-amino-, 1-(dihydrogen phosphate),
[R-[R*,S*-(E)]]-

```
=> file caplus medline uspatful
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              104.58     104.79

FILE 'CAPLUS' ENTERED AT 10:35:35 ON 19 MAR 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 10:35:35 ON 19 MAR 2003

FILE 'USPATFULL' ENTERED AT 10:35:35 ON 19 MAR 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 38597-28-3/rn or 26993-30-6/rn or 19797-97-9/rn or sphingosine 1-phosphate or
s1p
'RN' IS NOT A VALID FIELD CODE
L2        1776 38597-28-3/RN OR 26993-30-6/RN OR 19797-97-9/RN OR SPHINGOSINE
               1-PHOSPHATE OR S1P

=> s 38597-28-3/rn or 26993-30-6/rn or 19797-97-9/rn or sphingosine 1-phosphate
'RN' IS NOT A VALID FIELD CODE
L3        1599 38597-28-3/RN OR 26993-30-6/RN OR 19797-97-9/RN OR SPHINGOSINE
               1-PHOSPHATE

=> e fibrotic disease/ct
E#   FREQUENCY     AT      TERM
--   ---------     --      ----
E1           0      1      FIBROSUS/CT
E2           0      2      FIBROTEX/CT
E3           0        --> FIBROTIC DISEASE/CT
E4           0      2      FIBROUS/CT
E5           0      3      FIBROUS ANION EXCHANGERS/CT
E6           0      2      FIBROUS ANION-EXCHANGING FILTERING MATERIALS/CT
E7           0      2      FIBROUS ASTROGLIA NEUROGLIA/CT
E8           0      2      FIBROUS ASTROGLIA-OLIGODENDROGLIA PRECURSOR CELL/CT
E9           0      3      FIBROUS CATION EXCHANGERS/CT
E10          0      2      FIBROUS CAVERNITIDES/CT
E11          0      2      FIBROUS CAVERNITIS/CT
E12          0      2      FIBROUS CERAMIC MATERIALS/CT

=> s l2/thu
'RN' IS NOT A VALID FIELD CODE
'THU' IS NOT A VALID FIELD CODE
'THU' IS NOT A VALID FIELD CODE
L4         604 L2/THU

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5         593 DUP REM L4 (11 DUPLICATES REMOVED)

=> s l5 and (fibrotic or fibrosis or pulmonary fibrosis or diabetes or interstitial
pneumonia or cystic fibrosis or chronic hepatitis or hepatic cirrhosis or
glomerulosclerosis or chronic renal failure)
L6          14 L5 AND (FIBROTIC OR FIBROSIS OR PULMONARY FIBROSIS OR DIABETES
               OR INTERSTITIAL PNEUMONIA OR CYSTIC FIBROSIS OR CHRONIC HEPATITI
               S OR HEPATIC CIRRHOSIS OR GLOMERULOSCLEROSIS OR CHRONIC RENAL
               FAILURE)
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=> d ibib abs it 1-14

L6 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:742994 CAPLUS
DOCUMENT NUMBER: 138:53673
TITLE: Sphingosine 1-Phosphate Triggers Both Apoptotic and Survival Signals for Human Hepatic Myofibroblasts
AUTHOR(S): Davaille, Julien; Li, Liying; Mallat, Ariane; Lotersztajn, Sophie
CORPORATE SOURCE: INSERM U99, Hopital Henri Mondor, Creteil, 94010, Fr.
SOURCE: Journal of Biological Chemistry (2002), 277(40), 37323-37330
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hepatic myofibroblasts (hMFs) are central in the development of liver **fibrosis** during chronic liver diseases, and their removal by apoptosis contributes to the resoln. of liver **fibrosis**. We previously identified Edg receptors for sphingosine 1-phosphate (S1P) in human hMFs. Here, we investigated the effects of S1P on hMF apoptosis. S1P reduced viability of serum-deprived hMFs by an apoptotic process that was unrelated to the conversion of S1P into sphingosine and ceramide. The apoptotic effects of S1P were receptor-independent because dihydro-S1P, an Edg agonist, had no effect. S1P also stimulated a receptor-dependent survival pathway, revealed by enhanced activation of caspase-3 by S1P in the presence of pertussis toxin. Cell survival relied on two pertussis toxin-sensitive events, activation of ERK and activation of phosphatidylinositol 3-kinase (PI3K)/Akt by S1P. Both pathways were also activated by dihydro-S1P. Blunting either ERK or PI3K enhanced caspase-3 stimulation by S1P, and simultaneous inhibition of both pathways resulted in additive effects on caspase-3 activation. In conclusion, S1P induces apoptosis of human hMFs via a receptor-independent mechanism and stimulates a survival pathway following activation of Edg receptors. The survival pathway arises from the sequential activation of Gi/Go proteins and independent stimulations of ERK and PI3K/Akt. Therefore, blocking Edg receptors may sensitize hepatic myofibroblasts to apoptosis by S1P.

IT G proteins (guanine nucleotide-binding proteins)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Gi (adenylate cyclase-inhibiting); activation of ERK and phosphatidylinositol 3-kinase/Akt kinases following activation of Edg coupled to Gi/Go proteins in survival pathway triggered by sphingosine 1-phosphate in human hepatic myofibroblasts)

IT G proteins (guanine nucleotide-binding proteins)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Go; activation of ERK and phosphatidylinositol 3-kinase/Akt kinases following activation of Edg coupled to Gi/Go proteins in survival pathway triggered by sphingosine 1-phosphate in human hepatic myofibroblasts)

IT Liver, disease
(**fibrosis**; sphingosine 1-phosphate in triggering both apoptotic and survival signals for human hepatic myofibroblasts)

IT Fibroblast
(myofibroblast; sphingosine 1-phosphate in triggering both apoptotic and survival signals for human hepatic myofibroblasts)

IT Apoptosis
Human
Liver
Signal transduction, biological
(sphingosine 1-phosphate in triggering both apoptotic and survival signals for human hepatic myofibroblasts)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study) (sphingosine 1-phosphate, Edg-1, Edg-3 and Edg-5; activation of ERK and phosphatidylinositol 3-kinase/Akt kinases following activation of Edg coupled to Gi/Go proteins in survival pathway triggered by sphingosine 1-phosphate in human hepatic myofibroblasts)
IT 115926-52-8, Phosphatidylinositol 3-kinase 137632-07-6, ERK1 kinase 137632-08-7, ERK2 kinase 148640-14-6, Akt kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study) (activation of ERK and phosphatidylinositol 3-kinase/Akt kinases following activation of Edg coupled to Gi/Go proteins in survival pathway triggered by sphingosine 1-phosphate in human hepatic myofibroblasts)
IT **26993-30-6**, Sphingosine 1-phosphate 169592-56-7, Caspase-3
RL: BSU (Biological study, unclassified); BIOL (Biological study) (sphingosine 1-phosphate in triggering both apoptotic and survival signals for human hepatic myofibroblasts)
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:256587 CAPLUS
DOCUMENT NUMBER: 136:291008
TITLE: Methods and compositions for screening modulators of lipid kinases
INVENTOR(S): Normant, Emmanuel; Melendez, Alirio; Casamitjana, Olivier; Moreau, Francois
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002027318	A1	20020404	WO 2001-EP11250	20010928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1195604	A1	20020410	EP 2000-402684	20000929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 2001089939	A5	20020408	AU 2001-89939	20010928
EP 1195605	A1	20020410	EP 2001-402500	20010928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002042091	A1	20020411	US 2001-964860	20010928

PRIORITY APPLN. INFO.: EP 2000-402684 A 20000929
EP 2000-2000402684A 20000929
WO 2001-EP11250 W 20010928

AB The present invention relates to methods of screening compds. that modulate lipid kinases activity. The invention is more preferably based on the SPA technol. to screen compds. that modulate the activity of lipid kinases, in particular membrane lipid kinases, more specifically

sphingosine kinases. The invention also includes compns., products, kits, etc. for use in performing the above methods, as well as the compds. identified by said methods, and their uses.

IT Animal cell line
(BL21DE3, sphingosine kinase prodn. in; methods and compns. for screening modulators of lipid kinases)

IT Animal cell line
(CHO, human sphingosine kinase expression in; methods and compns. for screening modulators of lipid kinases)

IT Animal cell line
(COS-7, human sphingosine kinase expression in; methods and compns. for screening modulators of lipid kinases)

IT Animal cell line
(JURKAT; methods and compns. for screening modulators of lipid kinases)

IT Animal cell line
(SF9, sphingosine kinase prodn. in; methods and compns. for screening modulators of lipid kinases)

IT Proteins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(blood; methods and compns. for screening modulators of lipid kinases)

IT Lung, disease
(chronic obstructive; methods and compns. for screening modulators of lipid kinases)

IT Nervous system
(degeneration; methods and compns. for screening modulators of lipid kinases)

IT Cardiovascular system
(disease; methods and compns. for screening modulators of lipid kinases)

IT T cell (lymphocyte)
(helper cell/inducer, TH1, diseases related to; methods and compns. for screening modulators of lipid kinases)

IT Lipids, reactions
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(labeled; methods and compns. for screening modulators of lipid kinases)

IT Cell
Cell membrane
(lipid kinase of ext. of; methods and compns. for screening modulators of lipid kinases)

IT Radioactive substances
(lipids labeled with; methods and compns. for screening modulators of lipid kinases)

IT Allergy
Allergy inhibitors
Animal
Anti-inflammatory agents
Antiasthmatics
Antidiabetic agents
Antitumor agents
Asthma
Autoimmune disease
Cardiovascular agents
Dermatitis
Detergents
Diabetes mellitus
Diagnosis
Drug delivery systems
Drug screening
Human
Inflammation

Mammalia
Micelles
Microtiter plates
Neoplasm
Surgery
Temperature
Test kits
(methods and compns. for screening modulators of lipid kinases)

IT Lipids, reactions
Sphingosines
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(methods and compns. for screening modulators of lipid kinases)

IT Cardiolipins
Phosphatidylserines
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(methods and compns. for screening modulators of lipid kinases)

IT Phospholipids, biological studies
RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative)
(methods and compns. for screening modulators of lipid kinases)

IT Lipids, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(neutral; methods and compns. for screening modulators of lipid kinases)

IT Scintillation
(proximity assay; methods and compns. for screening modulators of lipid kinases)

IT Analysis
(scintillation proximity assay; methods and compns. for screening modulators of lipid kinases)

IT Albumins, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(serum; methods and compns. for screening modulators of lipid kinases)

IT Brain, disease
(stroke; methods and compns. for screening modulators of lipid kinases)

IT Scintillators
(support contg.; methods and compns. for screening modulators of lipid kinases)

IT Sphingosines
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(tritiated; methods and compns. for screening modulators of lipid kinases)

IT 1314-36-9, Yttrium-oxide, uses 9017-21-4, Polyvinyltoluene 12797-68-1, Yttrium-silicate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as support binding phosphorylated lipid and not unphosphorylated lipid; methods and compns. for screening modulators of lipid kinases)

IT **26993-30-6**, Sphingosine-1-Phosphate
RL: ARG (Analytical reagent use); FMU (Formation, unclassified); ANST (Analytical study); FORM (Formation, nonpreparative); USES (Uses)
(methods and compns. for screening modulators of lipid kinases)

IT 56-65-5, 5'-ATP, reactions 123-78-4D, Sphingosine, radiolabeled 14265-44-2, Phosphate, reactions
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(methods and compns. for screening modulators of lipid kinases)

IT 56-81-5, Glycerol, analysis 67-68-5, DMSO, analysis 9002-93-1, Triton X-100 9083-53-8, Triton
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(methods and compns. for screening modulators of lipid kinases)

IT 50864-48-7P, Sphingosine kinase
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(methods and compns. for screening modulators of lipid kinases)
IT 72060-45-8, Lipid kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(methods and compns. for screening modulators of lipid kinases)
IT 9003-05-8, Polyacrylamide 9003-53-6, Polystyrene 9012-36-6, Agarose
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(support contg.; methods and compns. for screening modulators of lipid kinases)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:712178 CAPLUS
DOCUMENT NUMBER: 136:35117
TITLE: **Cystic fibrosis** transmembrane regulator regulates uptake of sphingoid base phosphates and lysophosphatidic acid. Modulation of cellular activity of sphingosine 1-phosphate
AUTHOR(S): Boujaoude, Lina C.; Bradshaw-Wilders, Cynthia; Mao, Cungui; Cohn, Jon; Ogretmen, Besim; Hannun, Yusuf A.; Obeid, Lina M.
CORPORATE SOURCE: Division of Pediatric Gastroenterology and Nutrition, Medical University of South Carolina, Charleston, SC, 29425, USA
SOURCE: Journal of Biological Chemistry (2001), 276(38), 35258-35264
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sphingolipids have been implicated in the regulation of cell growth, differentiation, and programmed cell death. Sphingosine 1-phosphate (SPP) has recently emerged as an important lipid messenger and a ligand for the endothelial differentiation gene receptor family of proteins through which it mediates its biol. effects. Recent studies in Saccharomyces cerevisiae in our lab. implicated the yeast oligomycin resistance gene (YOR1), a member of the ATP binding cassette family of proteins, in the transport of SPP. The **cystic fibrosis** transmembrane regulator is a unique member of the ATP binding cassette transporter family and has high homol. with YOR1. We therefore set out to investigate if this member of the family can regulate SPP transport. We demonstrate that C127/**cystic fibrosis** transmembrane regulator (CFTR) cells, expressing wild type CFTR, exhibited significantly higher uptake of sphingosine 1-phosphate than either cells expressing a mutant CFTR C127/.DELTA.F508 or C127/mock-transfected cells. This effect was specific, dose-dependent, and competed off by dihydrosphingosine 1-phosphate and lysophosphatidic acid. There was no difference in uptake of sphingosine, C16-ceramide, sphingomyelin, lysosphingomyelin, phosphatidylcholine, lysophosphatidylcholine, or phosphatidic acid among the different cell lines. Pretreatment with forskolin or isobutylmethylxanthine to stimulate cAMP did not affect the uptake in any of the cell lines. Moreover, we found that mitogen-activated protein kinase activation by SPP was less responsive in C127/CFTR as compared with C127/mock-transfected cells, suggesting that uptake of SPP by CFTR may divert it from interacting with its cell surface receptors and attenuate signaling functions. Taken together, these data implicate CFTR in uptake of SPP and the related phosphorylated lipids dihydrosphingosine 1-phosphate and lysophosphatidic acid. This uptake influences the

availability of SPP to modulate biol. activity via endothelial differentiation gene receptors. These studies may have important implications to **cystic fibrosis**.

IT CFTR (**cystic fibrosis** transmembrane conductance regulator)
Lysophosphatidic acids
Lysophosphatidylcholines
Phosphatidic acids
Phosphatidylcholines, biological studies
Sphingomyelins
Sphingosines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate)

IT **Cystic fibrosis**
(**cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate in relation to)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine 1-phosphate, EDG-3; **cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine 1-phosphate, EDG-5; **cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate)

IT Biological transport
(uptake, carrier-mediated; **cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate)

IT 1670-26-4, Lysosphingomyelin 19794-97-9 24696-26-2, N-Palmitoylsphingosine **26993-30-6**, Sphingosine 1-phosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate)

IT 137632-07-6, ERK1 kinase 137632-08-7, ERK2 kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**cystic fibrosis** transmembrane regulator in regulation of uptake of sphingoid base phosphates and lysophosphatidic acid and modulation of cellular activity of sphingosine 1-phosphate in relation to)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:50665 CAPLUS
DOCUMENT NUMBER: 134:96294
TITLE: Cloning and cDNA sequence of a human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses
INVENTOR(S): Ames, Robert S.; Elshourbagy, Nabil; Foley, James J.; Michalovich, David; Sarau, Henry M.; Smith, Randall; Tsui, Ping; Vawter, Lisa; Agarwal, Pankaj; Lane, Pamela

PATENT ASSIGNEE(S): SmithKline Beecham Corporation, USA; SmithKline Beecham PLC
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001004139	A2	20010118	WO 2000-US19001	20000713
WO 2001004139	A3	20010531		

W: JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: GB 1999-16417 A 19990713
US 1999-169573P P 19991208

AB The invention provides protein and cDNA sequences of a novel human G-protein coupled 7TM receptor AXOR29, and methods for producing AXOR29 by recombinant techniques. Human AXOR29 is identified as a selective receptor for sphingosine-1-phosphate ("S-1-P") and di-hydro sphingosine-1-phosphate ("di-hydro S-1-P"). AXOR29 is structurally related to proteins of G-protein coupled family, having homol. and/or structural similarity with the mouse edg-1 G-protein coupled receptor. Also disclosed are methods for discovering agonists and antagonists of the interaction between S-1-P and di-hydro S-1-P and their cellular receptor, human AXOR29, which may have utility in the treatment of several human diseases and disorders, including, but not limited to the treatment of infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; pain; cancers; **diabetes**, obesity; anorexia; bulimia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; angina pectoris; myocardial infarction; stroke; ulcers; asthma; allergies; benign prostatic hypertrophy; migraine; vomiting; psychotic and neurol. disorders, including anxiety, schizophrenia, manic depression, depression, delirium, dementia, and severe mental retardation.

IT Protein motifs
(7TM (7 transmembrane); cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Second messenger system
(AXOR29 play a role in; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Cell membrane
(AXOR29 receptor located on; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT G protein-coupled receptors
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(AXOR29; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Drug screening
Molecular cloning
(cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT RNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(for AXOR29; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT cDNA sequences
(for G-protein coupled receptor AXOR29 of human; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT Protein sequences
(of G-protein coupled receptor AXOR29 of human; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT 319937-09-2P
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(amino acid sequence; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT 19794-97-9 **26993-30-6**, Sphingosine-1-phosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ligand for AXOR29; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

IT 319937-10-5
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(nucleotide sequence; cloning and cDNA sequence of human G-protein coupled 7TM receptor (AXOR29) and its diagnostic and therapeutic uses)

L6 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:50521 CAPLUS
DOCUMENT NUMBER: 134:105887
TITLE: **Fibrosis** inhibitors containing as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate
INVENTOR(S): Kishikawa, Katsuya; Matsumoto, Shigeru
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001003739	A1	20010118	WO 2000-JP4583	20000710
W: JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1195165	A1	20020410	EP 2000-944365	20000710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: JP 1999-196892 A 19990712

WO 2000-JP4583 W 20000710

AB The invention relates to **fibrosis** inhibitors [tablets, injections] contg. as the active ingredient a sphingosine-1-phosphate (S1P) receptor agonist or sphingosine-1-phosphate (S1P). Because of having an effect of inhibiting **fibrosis** in various organs, S1P receptor agonists (in particular, S1P) are useful in preventing and/or treating diseases in assocn. with **fibrosis** of organs such as **pulmonary fibrosis, interstitial pneumonia, chronic hepatitis, hepatic cirrhosis,** chronic renal insufficiency or kidney glomerular sclerosis.

IT Kidney, disease
(failure, chronic; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Cirrhosis
(**fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Lung, disease
(**fibrosis; fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Kidney, disease
(**glomerulosclerosis; fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT **Fibrosis**
(inhibitors; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Drug delivery systems
(injections; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Pneumonia
(interstitial; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sphingosine 1-phosphate; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Drug delivery systems
(tablets; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT Hepatitis
(viral, chronic; **fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

IT **26993-30-6,** Sphingosine-1-phosphate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**fibrosis** inhibitors contg. as the active ingredient sphingosine-1-phosphate receptor agonist or sphingosine-1-phosphate)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:811660 CAPLUS
DOCUMENT NUMBER: 134:54861
TITLE: Antiproliferative properties of sphingosine 1-phosphate in human hepatic myofibroblasts: a

cyclooxygenase-2 mediated pathway

AUTHOR(S): Davaille, Julien; Gallois, Cyrille; Habib, Aida; Li, Liying; Mallat, Ariane; Tao, Jiangchuan; Levade, Thierry; Lotersztajn, Sophie

CORPORATE SOURCE: INSERM U99, Hopital Henri Mondor, Creteil, 94010, Fr.

SOURCE: Journal of Biological Chemistry (2000), 275(44), 34628-34633
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Proliferation of hepatic myofibroblasts (hMF) is central for the development of **fibrosis** during liver injury, and factors that may limit their growth are potential antifibrotic agents. Sphingosine 1-phosphate (S1P) is a bioactive sphingolipid with growth-regulating properties, either via Edg receptors or through intracellular actions. In this study, we examd. the effects of S1P on the proliferation of human hMF. Human hMF expressed mRNAs for the S1P receptors Edg1, Edg3, and Edg5. These receptors were functional at nanomolar concns. and coupled to pertussis toxin-sensitive and -insensitive G proteins, as demonstrated in guanosine 5'-3-O-(thio)triphosphate binding assays. S1P potently inhibited hMF growth (IC50 = 1 .mu.M), in a pertussis toxin-insensitive manner. Anal. of the mechanisms involved in growth inhibition revealed that S1P rapidly increased prostaglandin E2 prodn. and in turn cAMP, two growth inhibitory messengers for hMF; C2-ceramide and sphingosine, which inhibited hMF proliferation, did not affect cAMP levels. Prodn. of cAMP by S1P was abolished by NS-398, a selective inhibitor of COX-2. Also, S1P potently induced COX-2 protein expression. Blocking COX-2 by NS-398 blunted the antiproliferative effect of S1P. We conclude that S1P inhibits proliferation of hMF, probably via an intracellular mechanism, through early COX-2-dependent release of prostaglandin E2 and cAMP, and delayed COX-2 induction. Our results shed light on a novel role for S1P as a growth inhibitory mediator and point out its potential involvement in the neg. regulation of liver fibrogenesis.

IT Ceramides
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(C2; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Gene, animal
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(Edg1; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Gene, animal
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(Edg3; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Gene, animal
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(Edg5; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Proliferation inhibition
(assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to

pathogenesis of hepatic **fibrosis** in human)

IT Sphingosines
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Liver, disease
(**fibrosis**; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Liver
(hepatocyte, proliferation; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Fibroblast
(myofibroblast, of liver; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Receptors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine 1-phosphate, Edg1; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Receptors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine 1-phosphate, Edg3; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT Receptors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine 1-phosphate, Edg5; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT 39391-18-9, Cyclooxygenase
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(1 and 2; assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT 60-92-4, CAMP
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT **26993-30-6**, Sphingosine 1-phosphate
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(assocn. of sphingosine 1-phosphate and its receptors as growth inhibitory mediators with cyclooxygenase-2 pathway in relation to pathogenesis of hepatic **fibrosis** in human)

IT 363-24-6, Prostaglandin E2

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(effect on sphingosine 1-phosphate and its receptors in relation to pathogenesis of hepatic **fibrosis** in human)
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 14 USPATFULL
ACCESSION NUMBER: 2003:40678 USPATFULL
TITLE: Compositions for treating autoimmune disease
INVENTOR(S): Holoshitz, Joseph, Ann Arbor, MI, United States
Shayman, James A., Ann Arbor, MI, United States
Tan, Shi-Yu, Ann Arbor, MI, United States
PATENT ASSIGNEE(S): The Regents of the University of Michigan, Ann Arbor, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6518259	B1	20030211
APPLICATION INFO.:	US 2000-575612		20000522 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-9906, filed on 21 Jan 1998, now patented, Pat. No. US 6098631
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Fay, Zohreh
ASSISTANT EXAMINER: Kwon, Brian-Yong S.
LEGAL REPRESENTATIVE: Medlen & Carroll, LLP
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 17 Drawing Page(s)
LINE COUNT: 961
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions are described for treating and diagnosing autoimmune diseases, and in particular for treating and detecting rheumatoid arthritis. Treatment is described with a new class of anti-RA drug, namely compounds that inhibit proliferation and induce apoptosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT G proteins (guanine nucleotide-binding proteins)
(Gi (adenylate cyclase-inhibiting), inhibitors; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT Arthritis
(adjuvant; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT Drug delivery systems
(injections, i.v.; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT Drug delivery systems
(injections, intra-articular; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT Anesthetics
(local; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases, and prepns. with local anesthetics)
IT Antirheumatic agents
IT Apoptosis
IT Autoimmune disease
IT B cell (lymphocyte)
IT Rheumatoid arthritis
IT Signal transduction, biological
IT T cell (lymphocyte)
(sphingomyelin signal transduction pathway inhibitor for treating

autoimmune diseases)
IT Fas antigen
(sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT Sphingomyelins
(sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT 50864-48-7, Sphingosine kinase 142805-58-1
(inhibitors; sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT 2304-75-8, DL-threo-Dihydrosphingosine 2700-62-1 19545-26-7, Wortmannin 119567-63-4, Dimethylsphingosine 161802-96-6, Trimethylsphingosine 167869-21-8, PD098059
(sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)
IT 9055-67-8, Poly(ADP-ribose) polymerase **26993-30-6**, Sphingosine-1-phosphate 115926-52-8, Phosphatidylinositol 3-kinase 169592-56-7, Caspase 3
(sphingomyelin signal transduction pathway inhibitor for treating autoimmune diseases)

L6 ANSWER 8 OF 14 USPATFULL
ACCESSION NUMBER: 2003:37659 USPATFULL
TITLE: Compositions and methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor
INVENTOR(S): Sabbadini, Roger A., Lakeside, CA, UNITED STATES
PATENT ASSIGNEE(S): Medlyte, Inc. (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003027304	A1	20030206	
APPLICATION INFO.:	US 2001-29401	A1	20011221	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-257926P	20001222	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard J. Warburg, FOLEY & LARDNER, P.O. Box 80278, San Diego, CA, 92138-0278
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 5688
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions are disclosed that are useful for the prevention and/or treatment of cardiovascular and cardiac diseases and disorders, or damage resulting from surgical or medical procedures that may cause ischemic or ischemic/reperfusion damage in humans; and cardiovascular trauma. The beneficial effects of the compositions and methods are achieved through the use of pharmaceutical compositions that include agents that interfere with the production and/or biological activities of sphingolipids and their metabolites, particularly sphingosine (SPH) and sphingosine-1-phosphate (S-1-P). Also disclosed are methods for identifying and isolating therapeutic agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT Receptors
(AXOR29; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Receptors
(Edg-1; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-3; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-5; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-6; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-8; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Mil; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(NRG1; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Gene, animal
IT Receptors
(SCaMPER; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Glycosides
(amino, library; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery
(angioplasty; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Nucleic acids
(aptamers; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Drug delivery systems
(cardiac; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery
(coronary, bypass surgery; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery, disease
(coronary; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Ceramides
(dihydro; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Cardiovascular system

(disease; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT High throughput screening
(drug; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Sphingomyelins
(enzymes metabolizing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Heart, disease
(failure, idiopathic; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Heart, disease
(failure; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Receptors
(for sphingolipids; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Drug screening
(high throughput; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Heart, disease
(infarction; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Reperfusion
(injury; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Brain, disease

IT Heart, disease
(ischemia; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antibodies
(monoclonal; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Angiogenesis
(neovascularization; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antibodies
(single chain; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT mRNA
(sphingolipid-metabolizing enzyme-encoding; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Enzymes, biological studies
(sphingolipid-metabolizing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Animal tissue culture

IT Combinatorial library
IT Drug screening
IT Gene therapy
IT Genetic vectors
IT Heart, disease
IT Heart, disease
IT Human
IT Molecular cloning
IT Rat
IT Signal transduction, biological
IT cDNA sequences
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Cytokines
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Sphingolipids
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Sphingosines
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Antibodies
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Antisense oligonucleotides
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Oligonucleotides
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Medical goods
(stents; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Brain
(vascular disease of; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT 85305-88-0, Galactosylceramide
(enzyme producing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT 440004-01-3, DNA (rat gene SCaMPER protein cDNA) 440004-02-4, DNA (human gene SCaMPER protein cDNA) 440004-03-5, DNA (rat gene Edg-3 receptor cDNA)
(nucleotide sequence; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT 123-78-4, Sphingosine 764-22-7, Sphinganine 18944-28-0, 3-Ketosphinganine **26993-30-6**, Sphingosine 1 phosphate 56467-83-5, Ceramidase 62213-50-7, Serine palmitoyltransferase 123175-68-8, Ceramide kinase
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for

identifying agents therapeutic therefor)
IT 9031-54-3, Sphingomyelinase 9055-50-9, Nadph reductase 37257-09-3, Ceramide synthase 50864-48-7, Sphingosine kinase 58703-97-2, Sphingomyelin synthase 103843-28-3, Desaturase 169277-44-5, Sphingosine-1-phosphate phosphatase 179241-79-3, Sphingomyelin deacylase
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT 1403-66-3D, Gentamicin, derivs.
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT 440075-36-5 440075-37-6 440075-38-7 440075-39-8
(unclaimed nucleotide sequence; compns. and methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

L6 ANSWER 9 OF 14 USPATFULL
ACCESSION NUMBER: 2003:37578 USPATFULL
TITLE: Specimen-linked G protein coupled receptor database
INVENTOR(S): Muraca, Patrick J., Pittsfield, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027223	A1	20030206
APPLICATION INFO.:	US 2002-184694	A1	20020628 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-302316P	20010629 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PALMER & DODGE, LLP, PAULA CAMPBELL EVANS, 111 HUNTINGTON AVENUE, BOSTON, MA, 02199
NUMBER OF CLAIMS: 126
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Page(s)
LINE COUNT: 3618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a method and system for identifying and evaluating the physiological responses of an organism to a condition, such as a disease or other pathological condition, a drug or agent, an environmental condition, and the like, by evaluating the expression of one or more GPCR pathway biomolecules in tissue microarrays from a plurality of patients. In one aspect, a tissue information system is provided comprising a specimen-linked database and an information management system for accessing, organizing, and displaying tissue information obtained from tissue microarrays. Preferably, the system is used to model and validate GPCR pathways affected during one or more physiological responses to a condition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT Transcription factors
(JAK/STATS pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Histocompatibility antigens
(MHC (major histocompatibility complex), class I, mediated antigen presentation related biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Ras proteins
(activation pathway biomol. detn.; specimen-linked G protein coupled

receptor database and use in conjunction with tissue microarrays)
IT TCR (T cell receptors)
(based signaling pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Information systems
(clin.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Nervous system
(degeneration; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT DNA repair
(gene, information of; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Animal tissue
(microarrays; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Apoptosis
IT Biochemical molecules
IT Blood coagulation
IT Drug screening
IT Human
IT Neoplasm
(specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT G protein-coupled receptors
(specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Microarray technology
(tissue microarrays; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Drugs
(tissue of drug-treated patients; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT Transforming growth factors
(.beta.-, signaling pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT 152478-56-3, JAK1 kinase
(JAK/STATS pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT 57-88-5, Cholesterol, analysis
(metab. of; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT 80449-02-1, Tyrosine kinase 115926-52-8, PI 3 kinase
(pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT **26993-30-6**, Sphingosine 1-phosphate 142243-02-5, MAP kinase
(signaling pathway biomol. detn.; specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)
IT 147230-71-5, Flt3 receptor tyrosine kinase
(specimen-linked G protein coupled receptor database and use in conjunction with tissue microarrays)

L6 ANSWER 10 OF 14 USPATFULL

L6 ANSWER 13 OF 14 USPATFULL
ACCESSION NUMBER: 2000:157396 USPATFULL
TITLE: Methods for promoting survival of myelin producing cells
INVENTOR(S): Chun, Jerold J. M., La Jolla, CA, United States
Weiner, Joshua A., La Jolla, CA, United States
PATENT ASSIGNEE(S): Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6150345		20001121
APPLICATION INFO.:	US 1998-153464		19980915 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-96008P	19980810 (60)
	US 1998-96924P	19980818 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Borin, M.
LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 788
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides a method for promoting the survival of myelin producing cells, in particular SCs and oligodendrocytes. Other embodiments of the present invention are directed to therapeutic methods, utilities, and other related uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT G proteins (guanine nucleotide-binding proteins)
(Gi (adenylate cyclase-inhibiting); lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Receptors
(LPA1/VZG-1/edg-2; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Nerve, disease
(demyelination; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Animal tissue culture
IT Apoptosis
IT Myelination
IT Nervous system agents
IT Oligodendrocyte
IT Schwann cell
IT Signal transduction, biological
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Lysophosphatidic acids
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Myelin
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Gene, animal
(lysophosphatidic acid receptor; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)
IT Receptors

(lysophosphatidic acid; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT Heregulins
(neuregulin .beta.; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT Phosphorylation, biological
(protein; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT Lysophosphatidic acids
(receptors; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT Receptors
(sphingosine 1-phosphate; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT Multiple sclerosis
(therapeutic agents; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT **26993-30-6**, Sphingosine 1-phosphate
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT 169736-88-3P 259225-83-7P 259225-84-8P 259225-85-9P 259225-86-0P 259225-87-1P 259231-37-3P
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT 65528-98-5
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT 115926-52-8, Phosphoinositide 3-kinase 149147-12-6, Akt kinase
(lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT 111-58-0P 18704-66-0P 83258-36-0P 259231-36-2P
(prepn. and reaction; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells)

IT 87-66-1, Pyrogallol 112-16-3, Lauroyl chloride 112-77-6, Oleoyl chloride 141-43-5, reactions 156-87-6, 1-Propanol-3-amine 6286-43-7, 1,2,3-Cyclohexanetriol 7719-09-7, Thionyl chloride 7790-94-5, Chlorosulfuric acid 10025-87-3, Phosphorus oxychloride 25496-72-4, Monoolein 26402-26-6, Monocaprylin
(reaction; lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cell

L6 ANSWER 10 OF 14 USPATFULL
ACCESSION NUMBER: 2003:37155 USPATFULL
TITLE: Compositions and methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor
INVENTOR(S): Sabbadini, Roger A., Lakeside, CA, UNITED STATES
PATENT ASSIGNEE(S): Medlyte, Inc. (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003026799	A1	20030206	
APPLICATION INFO.:	US 2001-28156	A1	20011221	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-257926P	20001222 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard J. Warburg, FOLEY & LARDNER, P.O. Box 80278, San Diego, CA, 92138-0278
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 5689
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions are disclosed that are useful for the prevention and/or treatment of cardiovascular and cardiac diseases and disorders, or damage resulting from surgical or medical procedures that may cause ischemic or ischemic/reperfusion damage in humans; and cardiovascular trauma. The beneficial effects of the compositions and methods are achieved through the use of pharmaceutical compositions that include agents that interfere with the production and/or biological activities of sphingolipids and their metabolites, particularly sphingosine (SPH) and sphingosine-1-phosphate (S-1-P). Also disclosed are methods for identifying and isolating therapeutic agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT Receptors
(AXOR29; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-1; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-3; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-5; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-6; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(Edg-8; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Receptors
(Mil; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors
(NRG1; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Gene, animal
IT Receptors
(SCaMPER; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Glycosides
(amino, library; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery
(angioplasty; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Nucleic acids
(aptamers; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Drug delivery systems
(cardiac; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery
(coronary, bypass surgery; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Artery, disease
(coronary; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Ceramides
(dihydro; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Cardiovascular system
(disease; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT High throughput screening
(drug; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Sphingomyelins
(enzymes metabolizing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Heart, disease
(failure, idiopathic; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Heart, disease
(failure; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)
IT Receptors

(for sphingolipids; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Drug screening
(high throughput; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Heart, disease
(infarction; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Reperfusion
(injury; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Brain, disease

IT Heart, disease
(ischemia; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antibodies
(monoclonal; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Angiogenesis
(neovascularization; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antibodies
(single chain; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT mRNA
(sphingolipid-metabolizing enzyme-encoding; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Enzymes, biological studies
(sphingolipid-metabolizing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Animal tissue culture

IT Combinatorial library

IT Drug screening

IT Gene therapy

IT Genetic vectors

IT Heart, disease

IT Heart, disease

IT Human

IT Molecular cloning

IT Rat

IT Signal transduction, biological

IT cDNA sequences
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Cytokines
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Sphingolipids
(sphingosine metab. in relation to methods for the treatment and

prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Sphingosines
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antibodies
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Antisense oligonucleotides
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Oligonucleotides
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Medical goods
(stents; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT Brain
(vascular disease of; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 85305-88-0, Galactosylceramide
(enzyme producing; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 440004-01-3, DNA (rat gene SCaMPER protein cDNA) 440004-02-4, DNA (human gene SCaMPER protein cDNA) 440004-03-5, DNA (rat gene Edg-3 receptor cDNA)
(nucleotide sequence; sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 123-78-4, Sphingosine 764-22-7, Sphinganine 18944-28-0, 3-Ketosphinganine **26993-30-6**, Sphingosine 1 phosphate 56467-83-5, Ceramidase 62213-50-7, Serine palmitoyltransferase 123175-68-8, Ceramide kinase
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 9031-54-3, Sphingomyelinase 9055-50-9, Nadph reductase 37257-09-3, Ceramide synthase 50864-48-7, Sphingosine kinase 58703-97-2, Sphingomyelin synthase 103843-28-3, Desaturase 169277-44-5, Sphingosine-1-phosphate phosphatase 179241-79-3, Sphingomyelin deacylase
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 1403-66-3D, Gentamicin, derivs.
(sphingosine metab. in relation to methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

IT 440075-36-5 440075-37-6 440075-38-7 440075-39-8
(unclaimed nucleotide sequence; compns. and methods for the treatment and prevention of cardiovascular diseases and disorders, and for identifying agents therapeutic therefor)

L6 ANSWER 11 OF 14 USPATFULL
ACCESSION NUMBER: 2002:181532 USPATFULL

TITLE: Polynucleotide sequences of human EDG-1c

INVENTOR(S): Bergsma, Derk J., Berwyn, PA, United States
Chan, Winnie, West Chester, PA, United States
Khandoudi, Nassirah, Saint Gregoire, FRANCE
Robert, Phillipe, Saint Gregoire, FRANCE

PATENT ASSIGNEE(S): SmithKline Beecham Corporation, Philadelphia, PA, United States (U.S. corporation)
SmithKline Beecham PLC, Brentford, UNITED KINGDOM (non-U.S. corporation)
SB Laboratories Pharmaceutiques, Nanterre Cedex, FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6423508	B1	20020723
APPLICATION INFO.:	US 1999-262477		19990304 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-77369P	19980309 (60)
	US 1998-87102P	19980528 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Spector, Lorraine
ASSISTANT EXAMINER: O'Hara, Eileen B.
LEGAL REPRESENTATIVE: Hecht, Elizabeth J., King, William T., Kinig, Charles M.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1508

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Human EDG-1c polypeptides and polynucleotides and methods for producing such polypeptides by recombinant techniques are disclosed. Human EDG-1c is identified as a selective receptor for sphingosine-1-phosphate ("S-1-P") and for di-hydro S-1-P. Also diclsosed are methods for discovering agonists and antagonists of the interaction between S-1-P and di-hydro S-1-P and their cellular receptor, human EDG-1c, which may have utility in the treatment of several human diseases and disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT Receptors
(EDG-1c; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT Heart, disease
(arrhythmia; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT Heart, disease
(failure; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT Animal tissue culture
IT Cardiovascular agents
IT Genetic engineering
IT Genetic vectors
IT Molecular cloning
IT Protein sequences
IT Transformation, genetic
IT cDNA sequences
(human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT Antibodies
(human EDG-1c polynucleotides and polypeptides for therapy of heart

diseases)
IT Heart, disease
(left ventricle, hypertrophy; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT Receptors
(sphingosine 1-phosphate, EDG-1c; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT mRNA
(sphingosine phosphate receptor-specifying; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT 244014-61-7P
(amino acid sequence; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT 244014-60-6P
(nucleotide sequence; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)
IT 19794-97-9 **26993-30-6**, Sphingosine 1-phosphate
(receptors for; human EDG-1c polynucleotides and polypeptides for therapy of heart diseases)